



## Summary Report for Cascades Science Squad Science Days – Aug 11, 2012

[Jul 14](#)

[Jul 28](#)

**Aug 11**

[Aug 25](#)

[Sep 8](#)

[Sep 22](#)

[Cascades Science Center Foundation](#) is a non-profit organization with a mission to inspire enthusiasm for science, technology, engineering and mathematics through hands-on science education. Thanks to the parents for getting involved with the foundation by making their child part of the [Science Squad](#), volunteers (activity leads and activity assistants) for donating their time to engage kids in science and [Children's Home Society of Washington](#) for providing a venue at [North Seattle Family Center](#). Next session is on **Saturday, August 25, 2012**. If you are the activity lead or activity assistant, you can find pertinent information at [Cascades Science Squad Activity Lead Guide](#). There were some glitches with couple of engineering activities and unexpected lunch break interrupting the schedule. The glitches can be minimized by prior preparation and we will have a dedicated lunch break for the kids in our next session.

Yasmin Gastelo, thank you for doing fabulous job as the program lead of the day. The photos from the event can be found on our Facebook page [here](#). Ashish Harchwani – thank you for moderating the classes and helping the activity leads. Activity Leads, without you the gift of education to the kids would not have been possible – THANK YOU!

### Physical Science



**Light Chemistry** Lead: Pete Traube, Guadalupe Aguayo, Tessa Decoite

Have you ever wondered why some things glow in the dark? We have so many products available now that glow in the dark from decorative stars, fabric paints, to glow in the dark clothing. Glowing in the dark, also called luminescence, usually is a simple matter of chemistry. Certain chemicals store energy when exposed to light, then slowly release that energy, which causes them to emit a small amount of light and thus glow.

**Light Chemistry:** Kids used a fluorescent paint color to pain their ceramic objects. The objective of this lesson was for them to learn the difference between fluorescence and phosphorescence.

**Fluorescent Slime:** Kids learnt about the properties of polymers while having fun making some colorful slime.

### Engineering



**Motor & Magnetism** Lead: Yina Arenas, Gina Malavar, Cyrus Liu

In this session, the kids were divided into three groups (6-7 kids in each group) who then rotated to do the following activities:

**Create an Electromagnet:** Kids turned a nail into an electromagnet by wrapping a coil around it and passing it electric current. Electromagnets are used in all sorts of machines, from door bells, MRI machines to giant scrap yard cranes. Electricity and magnetism are closely related phenomena.

**Build a simple Electric Motor:** Look around you... motors are used in an unlimited number of everyday devices designed by engineers. Engineers must fully understand and apply the connection between electricity and magnetism as they design and build motors, or design better and more efficient motors.

**Yogurt Cup Speakers:** This activity builds upon the electric motor activity and shows kids how electromagnetism is used in the speakers to produce sound. Unfortunately we didn't have a radio we could connect the speaker wires to. We experimented by using iPod and headphones, but that didn't work.

### Aerodynamics



**Aerodynamics** Lead: Roland J. Olivier, Gina Malavar

Continuing to learn about the four forces of flight, this session was about Lift and Weight.

**Lift:** In this activity, kids learnt about how lift is created using Bernoulli's principle and Newton's third law.

**Weight:** In this activity, kids learnt about center of gravity by balancing the index card on one finger while carrying paperclips. An airplane's center of gravity is important because it is the point around which the airplane will move. It is the spot where it will balance, front-to-back and side-to-side.